

PROLONGED DIAPAUSE IN  
*ENOCLERUS ZONATUS* (CLERIDAE)

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*Enoclerus zonatus* (Klug) is widespread in the southwestern United States, where adults are encountered in flowers and fruit of Agavaceae. I have taken the beetles in flowers of yucca in June in central Arizona, in pods of agave and yucca in southern Arizona in August and September, and in May in southern California on joshua tree (*Yucca brevifolia*). I have reared adults from larvae in pods of *Yucca schottii*, stalks of *Agave palmeri*, and seed clusters of *Nolina micocarpa* from the Santa Rita Mountains, Arizona. During a several year study of moths associated with *Yucca schottii*, larvae of *E. zonatus* were recovered from mature, green pods on many occasions. It appeared that this predator gained access only after larvae of the pollinator moths, *Tegeticula yuccasella* (Riley) and *Parategeticula pollenifera* Davis, had evacuated, leaving their conspicuous emergence holes. Probably prey of *Enoclerus* in this situation consisted primarily of secondary species, particularly the blastobasid moth *Holcocera gigantella* (Chambers) and *Carpophilus* nr. *yuccae* (Crotch) (Nitidulidae), larvae of which often were abundant in the pods.

Larvae collected in September and October sometimes produced adults in the following year, from June to October. However, individuals are capable of successfully prolonging their resting stage as fully fed larvae under certain circumstances. One adult emerged from stalks of *Agave* containing larvae of the prodoxine moth, *Agavenema barberella* (Busck), between 3 and 4 years after collection. Dry stalks collected in June, 1968, at Madera Canyon in the Santa Rita Mountains (JAP 68F44) produced many moths during the following 2 seasons but no clerids. The lot was stored overwinter 1970-71 in a constant temperature laboratory (21°C + 1°), then returned to an outdoor shed in inland Contra Costa County, California, for the 1971-72 winter, and 1 *Enoclerus zonatus* emerged by July, 1972.

An instance of greater longevity and more precise surveillance also resulted from a 1968 collection from Madera Canyon. A single larva was excised from a pod of *Yucca schottii* on 18 October, 16 days following collection (JAP 68K6) and was isolated in a plastic vial with paper toweling. It was stored at constant temperature in the lab without prey. After 3 years, on 31 August 1971, the prepupal larva was exposed for examination, and its cell was then reclosed with masking tape. The vial was housed overwinter 1973-74 at the inland shed and was transferred back to a mobile trailer lab in Berkeley on 4 June, 1974. Transformation to the pupa occurred by 16 June; color change was noted by 1 July; and the adult beetle emerged by 19 July, after 70 months in diapause.

Cases of prolonged diapause have been reported in other genera of Cleridae. (e.g., Linsley and MacSwain, 1945, Pan-Pacific Ent., 22:18, reported emergences of *Trichodes ornatus* Say and *Pelonium fasciatum* (LeConte) after 5 to 6 years in dry storage).

